REPORT RESUMES

ED 019 504 08 VT 005 481

ARIZONA OCCUPATIONAL RESEARCH COORDINATING UNIT. PROGRAM

REPORT.

BY- LEE, ARTHUR M.

NORTHERN ARIZONA UNIV., FLAGSTAFF

REPORT NUMBER BR-6-3029 PUB DATE 11 MAR 68

GRANT OEG-4-7-063029-1595

EDRS PRICE MF-\$0.25 HC-\$0.36 7P.

DESCRIPTORS- *RESEARCH COORDINATING UNITS, *VOCATIONAL EDUCATION, RESEARCH PROJECTS, *PROGRAM DESCRIPTIONS, *EDUCATIONAL RESEARCH, *STATE PROGRAMS, INFORMATION DISSEMINATION, ARIZONA,

MAJOR ACTIVITIES AND ACCOMPLISHMENTS OF THE ARIZONA RESEARCH COORDINATING UNIT (RCU) FOR THE PERIOD FROM DECEMBER 1, 1967 THROUGH FEBRUARY 29, 1968 INCLUDE COMPLETING A STATEWIDE STUDY OF ENGINEERING AND TECHNOLOGY, REORGANIZING A STATE VOCATIONAL RESEARCH COUNCIL TO IDENTIFY RESEARCH NEEDS, PREPARING AN OCCUPATIONAL EDUCATION BROCHURE, ASSISTING GRADUATE STUDENTS WITH RESEARCH PROJECTS, EXPLORING VOCATIONAL RESEARCH IN CONNECTION WITH INDIAN ECONOMIC DEVELOPMENT PROGRAMS, HELPING PREPARE A DEMONSTRATION GRANT PROPOSAL FOR A HEALTH OCCUPATIONS TRAINING PROGRAM, AND CONTINUING A STATEWIDE STUDY OF VOCATIONAL-TECHNICAL EDUCATION. DISSEMINATION ACTIVITIES INCLUDE DISTRIBUTING A NEWSLETTER AND DEVELOPING A RESEARCH MATERIALS LIBRARY. OTHER ACTIVITIES WERE SURVEYING ENGINEERING AND TECHNOLOGY STUDENTS, PROVIDING RESEARCH ASSISTANCE TO THE STATE DEPARTMENT OF VOCATIONAL EDUCATION, PREPARING FOR RCU CONFERENCES, AND PROVIDING RESEARCH ASSISTANCE TO INSTITUTIONS AND INDIVIDUALS. ACTIVITIES PLANNED FOR THE NEXT REPORTING PERIOD INCLUDE COMPLETING THE VOCATIONAL-TECHNICAL EDUCATION STUDY, AND THE CATALOG OF RESEARCH MATERIALS, DEVELOPING AN AUTOMATIC DATA COLLECTION AND RETRIEVAL SYSTEM FOR THE STATE DEPARTMENT OF VOCATIONAL EDUCATION AND IDENTIFYING ADDITIONAL RESEARCH NEEDS. (WB)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

Progress Report

Project No. 6-3029 Grant No. OEG 4-7-063029-1595

Arizona Occupational Research Coordinating Unit

Arthur M. Lee

Northern Arizona University Flagstaff, Arizona March 11, 1968

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

> Office of Education Bureau of Research



INTRODUCTION

This is the fifth quarterly report of the Arizona Occupational Research Coordinating Unit under its continuation grant covering the period December 1, 1966 - June 30, 1968. The Unit has been in operation since June 15, 1965. Quarterly reports until now have been made in summary form only as required by the Project Officer. Beginning with this report, they will comply with a new format prescribed by the Bureau of Research, U. S. Office of Education pursuant to instructions in a recent Memorandum to all RCU Directors.

1. MAJOR ACTIVITIES AND ACCOMPLISHMENTS DURING THIS PERIOD

A. Engineering Technology Study

The Report of this year-long Arizona study was completed in draft form. It contains 9 chapters, approximately 350 pages, including 54 pages of statistical tables from two surveys conducted as part of the study. Mimeograph copies of the report in draft form were prepared and sent to 40 Members of a joint panel of educators and industry representatives for review. The panel includes representatives of Arizona's three universities, six junior colleges, three major high school districts, State Department of Vocational Education, State Board for Junior Colleges, State Employment Service, Joint Apprenticeship Council, and ten major industrial employers. Members of the panel met in a one day conference to review the report before final preparation for printing.

B. Arizona Vocational Research Council

The Council, originally established by the RCU to identify research needs in the State, was reorganized and convened to begin a systematic program this year. Members of the Council include State Department supervisors, teacher-educators and research coordinators from the three universities; administrators from junior colleges and secondary school districts; and representatives of major industries, employer groups, and the State Employment Service. A procedural program was developed through which research needs in vocational and technical education will be channelled from schools and industry through the Council to the RCU for appropriate action.

C. <u>Development Board Brochure</u>

The State Development Board asked the RCU to prepare a brochure listing and describing all of the occupational training provided in Arizona. Purpose of the brochure is to inform existing and potential industry of the vocational and technical education resources available in serving skilled manpower requirements. Materials for the brochure were gathered, prepared, reviewed, and assembled. It will be printed and distributed in the next few weeks.



D. Graduate Student Research Projects

Three graduate students at Arizona State University are working on graduate research projects in vocational or technical education with RCU assistance. One of these is a doctoral dissertation in the decision-making process through which innovations and change are effected in junior college technical curricula. Another is a survey of the use of advisory committees in vocational and technical education. The third is an employer-employee evaluation of distributive education in Arizona. Preliminary assistance has been given another graduate student for a research project which would attempt to analyze the total curricula taken by vocational education students in high school to determine quantitatively the specific areas of knowledge and skill studied including both general and occupational education. Additional conferences have been held with other graduate students to discuss research projects.

E. Research in Indian Occupational Education

Several conferences have been held with representatives of Indian tribes, the Bureau of Indian Affairs, Arizona State University, Stanford University, the Economic Development Administration of the U. S. Department of Commerce, the Indian Development District of Arizona, and the U. S. Senate Subcommittee staff on Indian Education, to explore vocational education research in connection with Indian economic development programs. This is an area of vocational research not yet brought into clear focus but one of considerable urgency and great potential significance. The most promising course of action at this time appears to be a series of six studies for the Indian Development District of Arizona supported by the Economic Development Administration in which occupational education needs and potential would be identified with natural resources and business and industrial potential.

F. Health Occupations Training Proposal

The Maricopa County Junior College District is preparing a proposal with the assistance of the RCU for a demonstration grant to develop a comprehensive health occupations training program. This is the culmination of nearly three years of coordinated effort by the educational institutions, hospitals and other health agencies in the Phoenix area to accomplish this objective. The RCU has assisted in securing four previous research grants, the results of which form a substantial foundation upon which the present effort is being designed. This is an excellent example of the cumulative effects of both federally and privately supported research, as well as extensive state and local support, leading to a major development in occupational education.

G. Vocational-Technical Education Study

The comprehensive study of vocational-technical education in Arizona is partially completed. One part-time staff member has continued collecting and abstracting materials, but little additional activity was scheduled during this quarter because of demands on the staff in completing the engineering and technology study.

2. PROBLEMS

None.

3. SIGNIFICANT FINDINGS AND EVENTS

These will be included in the report on engineering and technology in Arizona being published and distributed in April.

4. DISSEMPNATION ACTIVITIES

A. Newsletter

One issue of the Arizona RCU Bulletin was distributed to a mailing list of 600 vocational educators, administrators, research personnel, university faculty, state agencies, employers, other state RCUs and ERIC. This issue consisted of descriptions of the National system of vocational research dissemination services through ERIC, the Ohio State Center of Vocational and Technical Education, and the RCUs; and how the system can be used by local educators and administrators. A number of additional requests have been received from educators in the State to be put on the RCU newsletter mailing list as a result of this issue. Several requests for materials and assistance in using ERIC microfiche have been received. All requests are handled by the RCU staff, and usually result in further correspondence, telephone calls or individual conferences regarding further use of these and other materials.

B. RCU Library of Occupational Research Materials

During this quater a number of additional materials have been received from the Ohio State Center, the Wisconsin Center, the U. S. Government Printing Office, the Departments of Commerce and Labor, and other sources. These have been catalogued for reference and distribution. The entire collection of current occupational research materials in the Arizona office numbers several hundred items. The catologing system originally used has been inadequate and the materials are now being reclassified and the system reorganized. This has proceded slowly due to the heavy pressure of work in the office in connection with the engineering and technology study report. Arrangements have been made to order all microfiche from the new ERIC contractor, National Cash Register, which are listed in the Ohio State publications of abstracts, AIM and ARM.



C. Arizona Economic Development Council

The RCU Director was invited to present a report to the State Economic Development Council on the engineering and technology research project. A conference lasting several hours resulted during which arrangements were made to extend the RCU's research and information dissemination services to a number of the State's major business enterprises.

D. Miscellaneous

Several requests from ERIC for research materials in Arizona were received and carried out. Arrangements were also made with the Northern Arizona Supplementary Education Center for supplementing and coordinating research dissemination activities in the areas of vocational and technical education.

5. CAPITOL EQUIPMENT ACQUISITIONS

None.

6. FORMS

A questionnaire form previously received and cleared by the Bureau of the Budget was used to gather data in a survey of engineering and technical students in Arizona, using fall semester enrollment lists at the three universities and six junior colleges. A questionnaire accompanied by a prepaid return envelope was mailed to each student. A total of 6,130 questionnaires were mailed out. Of these, 2,092 (34%) were completed and returned. The responses were coded, key punched and processed in the University data processing center. Eleven pages of statistical tables were printed out containing information about student characteristics, programs and majors, high school preparation, work experience, career choice, career goals and dropouts. All data were tabulated for the total group and by program, year in school, institution, and those who had taken industrial arts or vocational or technical education in high school. The tables and principal findings are included in the report on engineering and technology in Arizons to be published and distributed in April.

7. OTHER ACTIVITIES

A. AVERA Committee

The Director attended the American Vocational Association meeting in Cleveland, and was appointed chairman of an RCU Committee of the American Vocational Education Research Association. The purpose of this committee is to develop national communications and common interests among the state RCUs. One meeting of the committee was held in Cleveland, and considerable correspondence has been developed since then. The Director of the Arizona RCU, as chairman of this committee, sent a report of the Cleveland meeting and other activities to all RCU directors and the U. S. Office of Education.



B. Preparation for National RCU Conference

The Arizona RCU Director has assisted in some of the arrangements for a national RCU Conference at the University of Michigan, March 26-28. This was done as chairman of the AVERA Committee and as a result of previously being asked to assume this responsibility at a meeting of RCU personnel at the Ohio State Center in October.

C. Preparation for Western Regional RGU Conference

The Arizona RCU has sponsored two conferences of RCU personnel in the Western States, one in 1965 and one in 1966. Both of these were extremely benefical in developing communications and in dealing with matters vitally important to vocational research on a regional interstate basis. As a result, similar regional conferences have been or are being organized in Southern states, the Northeast, the North Central, and the Midwest, with the active encouragement of the U.S. Office of Education. A third Western Regional conference was to have been held in Nevada in December, 1967, under the joint sponsorship of the New Mexico and Nevada RCUs. This conference was postponed and rescheduled for April 25, 1968, and the Arizona RCU Director has assisted in making preparations. The major purpose of the 1968 Regional Conference will be to explore in considerable detail a close working relationship between the RCUs and the state administrators of Title III of the Elementary and Secondary Education Act in the Western States.

D. Special Committee to Develop Guidelines for RCU Continuation Grants

The Director of the Arizona RCU and six other state directors were asked by the U. S. Office of Education to serve on a special committee to develop quidelines for future Federal support of the RCU program. Two days were spent in Washington for this purpose.

E. Miscellaneous

Additional activities by the Arizona RCU during the past quarter included: conferences with the supervisors of home economics and quidance in the State Department of Vocational Education regarding research projects in their areas; assistance provided to a research team for Stanford University making a survey for the Maricopa County Junior College District in locating the new Scottsdale campus; Assistance provided to Maricopa County Junior College District in preparing a demonstration proposal for adult education; and conferences in connection with the engineering and technology study with the Colleges of Engineering at the University of Arizona and Arizona State University, the State Department of Vocational Education, and the State Employment Service.

8. STAFF SUMMARY

| Name | Title or Function | Funds Federal Local | Period Employed | Percent of time (Consultant days) |
|--|-------------------|------------------------|--------------------|---------------------------------------|
| ************************************** | | | | |
| Arthur M. Lee | Director | X | Entire period | 100% |
| Cora Schlanger | Secretary | X | Entire period | 100% |
| Susan Dickson | Clerk-Typist | X | Entire period | \$144 hrs in Dec. 2100% in Jan-Feb |
| Peggy Lee | Clerk-Typist | X | Entire period | 50% |
| Sherrie Gaylor | Clerk-Typist | X | Jan. 18, 1968 | 6½ hrs |
| Cles Leonard | Research Asst | X | Entire period | \$75% in Dec-Jan 240% in Feb. |
| John Decker | Consultant | X | Feb.2-25, 1968 | 3 12 days |
| NAU Bureau of Ed | Key Punch Operat | or X | Jan.15-Feb.23 | 40 hours |
| Research Personne | Computer Program | mer X | Jan.15-Feb.23 | 30 hours |

9. FUTURE ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

- A. Publish and distribute report on engineering and technology in Arizona.
- B. Complete study of vocational-technical education in Arizona.
- C. Complete catalogue of research materials in Arizona RCU library and distribute list of principal items available to educators and researchers in the state.
- D. Identify additional current research needs through the Arizona Vocational Research Council.
- E. Develop an automatic data collection and retrieval system for the State Department of Vocational Education.
- F. Conduct vocational-technical student follow up survey and establish a continuing follow up reporting and analysis service for the State Department of Vocational Education.
- G. Assist State Department of Vocational Education in preparation of State Plan for fiscal 1969.
- H. Plan RCU program for fiscal 1969 and write continuation proposal.
- I. Disseminate local and national research materials through newsletter, conferences, and personal contact.
- J. Continue assistance to: graduate students in vocational research; agencies developing Indian economic enterprises with *vocational education needs; schools and individuals in preparation of research proposals; and schools, agencies, and employers in implementing the findings of current research.

10. CERTIFICATION

ERIC

Lawrence Walkup, President

contract Officer

Arthur M. Lee

Principal Investigator